PLECTRANTHUS ARENICOLUS (LAMIACEAE), A NEW SPECIES FROM CAPE YORK PENINSULA, QUEENSLAND

by

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ABSTRACT

Forster, P.I. *Plectranthus arenicolus* (Lamiaceae), a new species from Cape York Peninsula, Queensland. *Muelleria* 7(3): 375–378 (1991). — *Plectranthus arenicolus* P. Forster *sp. nov.*, from west of Temple Bay, Cape York Peninsula, Queensland is described with notes on distribution and habitat.

INTRODUCTION

During botanical exploration of the area between Moreton Telegraph Station and Temple Bay, Cape York Peninsula, I collected flowering material and live plants for cultivation of a species of *Plectranthus*. Using the key published by Blake (1971) for his revision of the genus in Australia and adjacent regions, live material was keyed to *P. gratus* S.T. Blake described from Walsh's Pyramid near Tully. The material from Cape York Peninsula, although tallying in some features with *P. gratus*, differed in a number of significant characters, several of which were extensively used by Blake in his delimitation of taxa.

Some botanists have verbally expressed dissatisfaction with Blake's account of the genus, particularly when dealing with dried material, and have suggested that many of the taxa would be better placed in the synonymy of others. However it should be remembered that his account was based on extensive live collections. From studying a number of taxa native to Queensland both in habitat and subsequently in cultivation, it appears that in most instances Blake's key and description are quite adequate, although the existence of at least two undescribed taxa (from Mt Mulligan and Blackdown Tableland) other than the one described herein tend to lessen the usefulness of his account.

TAXONOMY

Plectranthus arenicolus P. Forster *sp. nov.*, a *P. grato* S.T. Blake caulium base tubera, trichomatibus in caulibus usque 2.7 mm longis, inflorescentiae axe carenti glandulas sessiles, foliis ferentibus tantum 4–6 paris dentium differt.

TYPUS: plant cultivated at St Lucia, Brisbane (from material of the same collection as *P.I. Forster 5456),* 22 October 1989, *P.I. Forster 5835* (HOLO: BRI [2 sheets + spirit]; ISO: K, MEL, QRS).

Subshrub to 30 cm high, foliage slightly scented. *Stems* or lateral branches erect, the lower woody part often straggling and up to 6 mm thick, seedling derived stems with a fleshy tuberous base to 1 cm in diameter; upper parts with a dense indumentum of antrorse 2-8–celled hairs up to 2.7 mm in length but commonly much shorter, lacking gland-tipped trichomes and with shortly stalked glandular hairs to 0.1 mm long on the internode directly below the inflorescence. *Leaves* long-petiolate; lamina ovate to narrowly-ovate, 23–33 mm long, 18–26 mm wide, dull green, somewhat fleshy, paler beneath and colouring purplish in strong light; serrate with 4–6 pairs of short broad teeth, occasionally with one or more secondary teeth; with dense indumentum of antrorse trichomes on both surfaces and occasional sessile yellowish gland below; veins impressed above, prominent below; petiole 7–12 mm long, 1–1.7 mm diameter. *Inflorescence*

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cymose comprising (1)–3 branches; each branch pedunculate, 11–14 cm long; axis with sparse to dense indumentum of antrorse non-glandular trichomes and minute gland-tipped trichomes, lacking sessile glands. *Verticillasters* consistently 10–flowered, 11–12 mm apart, pedicels 3–4 mm long with dense indumentum of minute gland-tipped trichomes. *Calyx* 2.2–2.6 mm long, with a dense indumentum of gland-tipped and eglandular trichomes and sessile yellow glands. *Corolla* 11–12 mm long, deep blue; tube 5.3–5.4 mm long, abruptly curved at *c.* 2–2.1 mm from base at an angle of 90–110°, slightly inflated upwards and then constricted to the slightly oblique mouth, glabrous; upper lobes *c.* 2.5 mm long and 2.5 mm wide, standing more or less erect at between 90 and 110° to the lip, subcircular, with an occasional eglandular trichome and sessile yellow glands; lateral lobes *c.* 2.5 mm long and 1.4–1.5 mm wide, obliquely ovate, glabrous, eglandular; lower lip 5.8–6 mm long, 5.5–6 mm wide, oblique, with sparse indumentum of antrorse eglandular hairs and isolated sessile yellow glands below. *Style* purplish-blue, 8–8.5 mm long and *c.* 2 mm diameter. *Stamens* 4, 7–8 mm long and *c.* 0.2 mm diameter, fused to the tube in the bottom 3 mm; anthers *c.* 0.4 mm long and 0.3 mm wide. *Fruiting calyx* 2.5–3.1 mm long; uppermost lobe 1.5–1.8 mm long and 1.4–1.5 mm wide, broadly ovate, tip acute; lateral lobes 1–1.1 mm long, 0.9–1 mm wide, triangular-falcate; lower lobes 1.5–1.6 mm long and *c.* 0.6 mm wide, narrowly triangular, incurved. *Nutlets* semi-spherical, 0.8–0.9 mm long and 0.75–0.85 mm wide. (Fig. 1)

ETYMOLOGY:

Named for the occurrence of the only known population on a sandstone outcrop.

DISTRIBUTION AND CONSERVATION STATUS:

Thus far, *P. arenicolus* is only known from the type locality. This locality is directly adjacent to the vehicular track that runs due east from Moreton Telegraph Station to the coast near Kennedy Hill. The population examined comprises several dozen plants within an area of approximately 50 m^2, although it is quite likely that further colonies occur off the general area of the road. An appropriate conservation coding is 1R (Briggs & Leigh 1989).

HABITAT NOTES:

Plants of *P. arenicolus* were observed to grow on the top of a sandstone outcrop surrounded by open eucalypt-dominated forest at an approximate altitude of 80 m. Little in the way of other plants were present in this specialised habitat.

AFFINITIES:

Stems with a tuberous base are uncommon in the Australasian taxa of *Plectranthus* (Blake 1971), with *P. parviflorus* Willd. being the only other taxon known to possess this feature, however *P. arenicolus* is not particularly close to this species. *P. arenicolus* differs from *P. gratus* in the stems possessing a tuberous base, the trichomes on the stem being up to 2.7 mm long, the number of leaf teeth pairs being 4–6, and the floral axis lacking sessile glands. The leaves of *P. arenicolus* are also somewhat smaller than those of *P. gratus* (holdings at BRI), although whether this is a result purely of the cultivation conditions remains to be determined. Blake (*l.c.*) grouped *P. gratus* with *P. forsteri* Benth. from the Pacific and *P. apreptus* S.T. Blake from the southern parts of the Cook District in Queensland. Cultivated material of *P. apreptus* (*Forster 4346 & Tucker*, BRI) is immediately distinguishable from *P. arenicolus* by the thinner, glabrous, glossy leaves with 7 to 15 leaf teeth pairs.

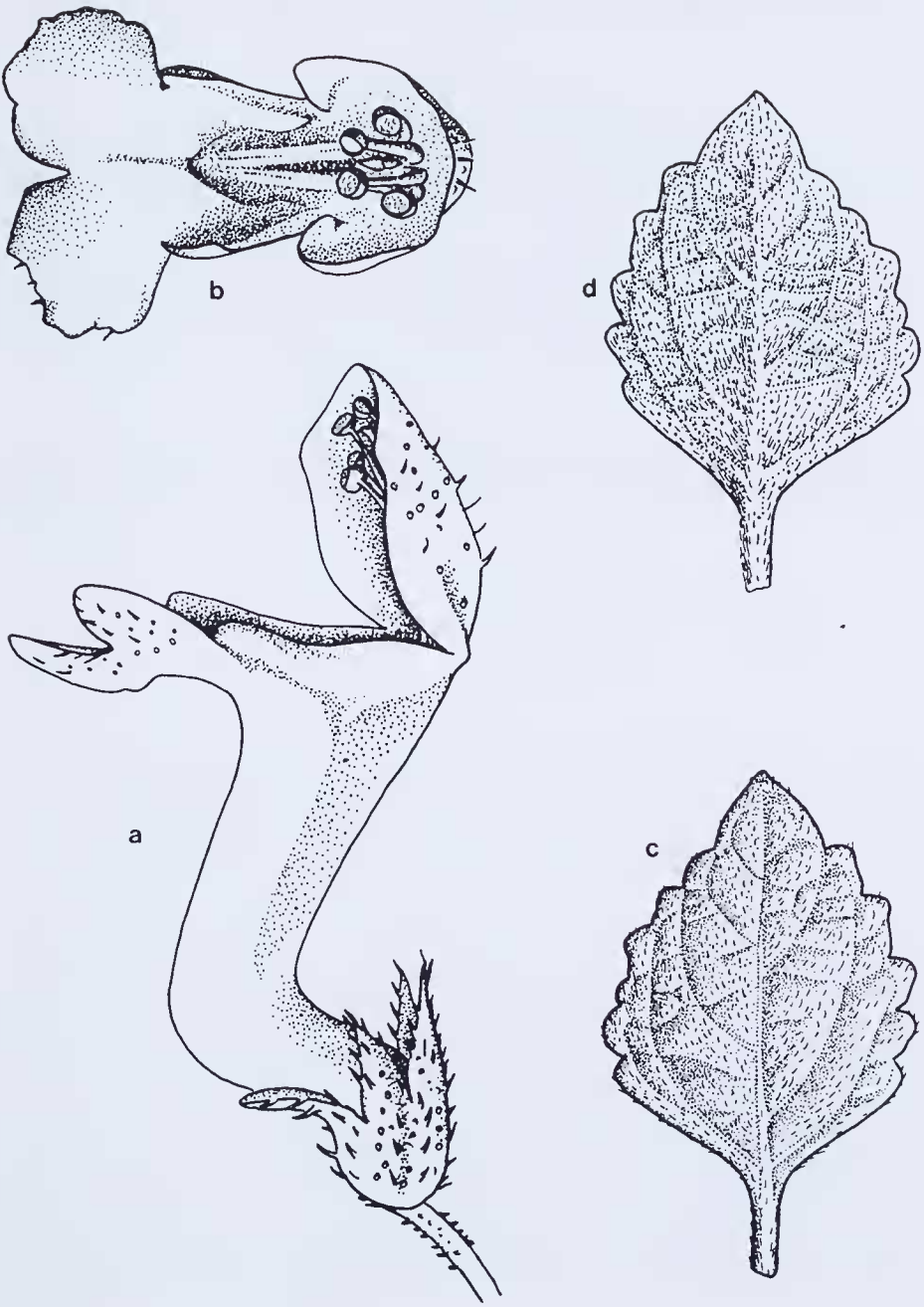

Fig. 1. *Plectranthus arenicolus*. a — lateral view of flower ×10. b — face view of flower ×10. c — leaf viewed from above ×2. d — leaf viewed from below ×2. All drawn from *Forster 5835. Del. L.G. Jessup.*

FURTHER SPECIMEN SEEN:

Queensland — Cook District, 20.9 km east by road from Maloney's Springs, 60.9 km east by road from Moreton Telegraph Station, 22.vi.1989, *P.I. Forster 5456* (BRI).

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